CLAIMS

Claim 1 A method for producing polymer compound by reacting polyester polymerized from a dicarboxylic acid and a component of two OH functional groups and having intrinsic viscosity not less than 0.2 dl/g, with a diamine, said method comprising the steps of:

providing particles of said polyester, said polyester having pores extending from a surface of said particle to inside thereof;

mixing said porous polyester with said diamine; and

heating said mixture to the temperature not lower than a melting point of said diamine and not higher than a significant temperature of said polyester to cause reaction between said polyester and said diamine, wherein said significant temperature is a melting point of said porous polyester or a flow-start temperature of said polyester depending on crystal properties of said polyester.

Claim 2 The method according to claim 1, wherein said method further comprising the step of:

subjecting reaction product between said polyester and said diamine to melt-mixing for promoting further reaction between said polyester and said diamine.

Claim 3 The method according to claim 1, wherein said diamine is polyorganosiloxane terminated at both ends with amino functional groups.

Claim 4 The method according to claim 1, wherein said polymer compound is polyamide and/or polyester-amide copolymer.

Claim 5 A polymer compound by reacting polyester polymerized from a dicarboxylic acid and a component of two OH functional groups and having intrinsic viscosity not less than 0.2 dl/g with a diamine, said polymer compound comprising:

particles of said polyester, said polyester having pores extending from a surface of said particles to inside thereof; and

copolymer between said polyester and said diamine formed within said pores.

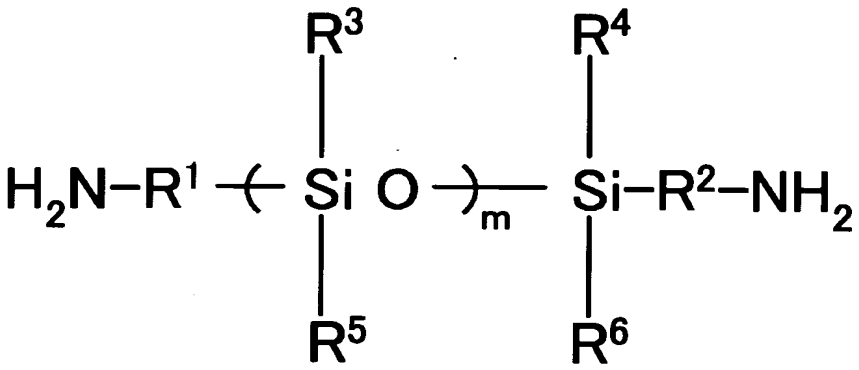
Claim 6 A structure comprising polymer compound, said polymer compound being formed by polyalylate and a polyorganosiloxane with terminated both ends thereof by amino functional groups and being synthesized by an ester-amide exchange reaction of said polyalylate and said polyorganosiloxane, said polyorganosiloxane being present in said polymer compound between 1 and 50 weight%,

wherein said polyalylate includes a repetition unit with the following formula (4);

(4)

in which Ar^1 and Ar^2 may be identical or different groups and represent aromatic residues with two functionalities, and n represents an integer from 1 to 100, and

wherein said polyorganosiloxane with terminated both ends thereof by amino functional groups is represented by the following formula (5);



(5)

in which R^1 and R^2 may be identical or different groups and represent aliphatic groups or aromatic groups together having C_1-C_{12}, and R^3, R^4, R^5, and R^6 may be identical or different aliphatic groups or aromatic groups with one functionality, and m represents an integer equal to or larger than one.

Claim 7 The structure according to claim 6, wherein said structure comprises an epoxy compound from 1 to 200 weight parts to said polymer compound of 100 weight parts.

Claim 8 The structure according to claim 6, wherein said structure is selected from the groups consisting of a metal foil laminated with said polymer compound, a prepreg comprising at least one reinforcing material and said polymer compound, a flexible print circuit or a print circuit board.

Claim 9 The structure according to 6, wherein said polyalylate polymer has a particle form, and said particle has pores extending from a surface to inside thereof.